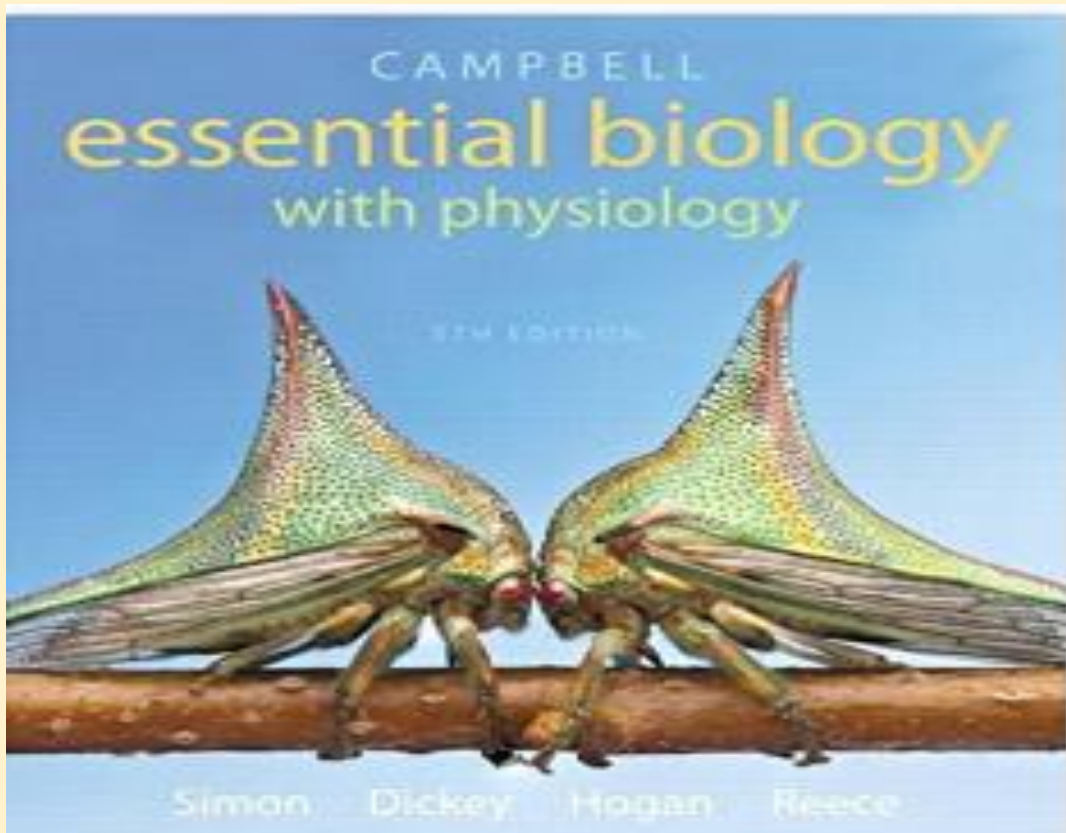


TEST BANK

CAMPBELL ESSENTIAL BIOLOGY WITH PHYSIOLOGY

5th Edition, by Simon, Dickey, Reece, Hogan



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Campbell Essential Biology with Physiology, 5th Edition Test Bank

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Campbell Essential Biology with Physiology, 5th Edition Test Bank
Chapter 1 Introduction: Biology Today

Multiple-Choice Questions

- 1) In what way(s) is the science of biology influencing and changing our culture?
A) by helping us understand the relevance of evolution to human health
B) by revealing how mutations in genes can lead to disease
C) by providing new tools for forensic investigations
D) all of the above

Answer: D

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

- 2) What is biology?
A) the scientific study of life
B) the scientific study of the environment
C) the scientific study of DNA
D) the scientific study of ecosystems

Answer: A

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

- 3) Which of the following is *not* a property of life?
A) Populations of organisms rarely change over time.
B) Living things exhibit complex but ordered organization.
C) Organisms take in energy and use it to perform all of life's activities.
D) Organisms reproduce their own kind.

Answer: A

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

- 4) What are the two main processes that ecosystems depend upon?
A) speciation and evolution
B) nutrient recycling and energy flow
C) decomposition and nutrient recycling
D) sunlight and photosynthesis

Answer: B

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

- 5) Which of the following is not recycled but is lost from ecosystems?
A) nitrogen
B) energy
C) magnesium
D) carbon

Answer: B

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

6) Which of the following is a producer?

- A) oak tree
- B) earthworm
- C) sun
- D) cat

Answer: A

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

7) Humans are _____.

- A) producers
- B) producers and consumers
- C) consumers
- D) producers and decomposers

Answer: C

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

8) Which of the following structures can perform all the activities required for life?

- A) DNA molecules
- B) cells
- C) organelles
- D) nuclei

Answer: B

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

9) Relative to prokaryotic cells, eukaryotic cells are usually _____.

- A) larger and more complex
- B) smaller and simpler
- C) larger and equally complex
- D) smaller and more complex

Answer: A

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

10) Humans are composed of _____ cells.

- A) bacterial
- B) eukaryotic
- C) plant
- D) prokaryotic

Answer: B

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

11) What name is given to the functional compartments of a cell?

- A) genomes
- B) nuclei
- C) genes
- D) organelles

Answer: D

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

12) The DNA of a eukaryotic cell is found within the_____.

- A) archaea
- B) nucleus
- C) prokaryotic cell
- D) insulin

Answer: B

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

13) What are eukaryotic genes composed of?

- A) RNA
- B) organelles
- C) RNA and DNA
- D) DNA

Answer: D

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

14) What is a gene?

- A) a type of eukaryotic cell
- B) an organelle that houses DNA
- C) a type of prokaryotic cell
- D) a unit of inheritance

Answer: D

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

15) The human genome consists of about_____chemical letters.

- A) 300,000
- B) 1 million
- C) 3 billion
- D) 300 billion

Answer: C

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

16) More than half of all known species are _____.

- A) plants
- B) insects
- C) bacteria
- D) vertebrates

Answer: B

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

17) Taxonomy is the _____.

- A) study of cells
- B) naming and classifying of species
- C) study of organisms and their interaction with the environment
- D) study of genes

Answer: B

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

18) How does taxonomy assist biologists?

- A) by providing easily remembered scientific names for organisms
- B) by categorizing diverse items into smaller and smaller numbers of groups
- C) by reducing life to its smallest common denominator, the cell
- D) all of the above

Answer: B

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

19) Which domain(s) consist(s) of prokaryotic cells?

- A) Bacteria only
- B) Eukarya only
- C) Archaea and Eukarya
- D) Bacteria and Archaea

Answer: D

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

20) Which kingdom of Eukarya consists primarily of unicellular organisms?

- A) Plantae
- B) Bacteria
- C) Fungi
- D) Protista

Answer: D

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

21) A newly discovered multicellular organism obtains food by digesting dead organisms. Such an organism is most likely a member of the kingdom_____.

- A) Plantae
- B) Fungi
- C) Protista
- D) Animalia

Answer: B

Topic: 1.1 The Scope of Life

Skill: Application/Analysis

22) Members of the kingdom Plantae differ from members of the other kingdoms of Eukarya in that most members of the kingdom Plantae_____.

- A) are decomposers
- B) are unicellular
- C) are consumers
- D) produce their own food

Answer: D

Topic: 1.1 The Scope of Life

Skill: Knowledge/Comprehension

23) The branch of biology that explains both the diversity and the unity of life is_____.

- A) evolution
- B) microbiology
- C) taxonomy
- D) genetics

Answer: A

Topic: 1.2 Evolution: Biology's Unifying Theme

Skill: Application/Analysis

24) Which of these is most closely associated with Darwin?

- A) energy flow
- B) ecosystem structure
- C) the three domains of life
- D) natural selection

Answer: D

Topic: 1.2 Evolution: Biology's Unifying Theme

Skill: Knowledge/Comprehension

25) Which of these is required for natural selection to occur?

- A) inheritance
- B) unequal reproductive success
- C) individual variation
- D) all of the above

Answer: D

Topic: 1.2 Evolution: Biology's Unifying Theme

Skill: Knowledge/Comprehension